Amendments to the Specification:

Please replace the heading on page 5, line 1, with the following amended heading:

DETAILED DESCRIPTION OF THE ~~DRAWINGS~~ INVENTION

Please replace the paragraph starting on page 8, line 19 with the following amended paragraph:

FIGURE 2 is a block diagram of one embodiment of a system 110 for generating an optical model. According to the embodiment, system 110 generates an optical model that describes the response of the imaging material of a wafer, or a wafer response, to a lens aberration. System ~~10~~ 110 may collect lens aberration data that describe lens aberrations, fit lens aberration functions to the lens aberration data, and generate an optical model in accordance to the lens aberration functions.

Please replace the paragraph starting on page 8, line 28 with the following amended paragraph:

According to the illustrated embodiment, system 110 includes a client 120, a server 124, and a database 128 coupled as shown in FIGURE 2 ~~1~~. According to one embodiment, client 120 allows a user to communicate with server 124 to generate an optical model, and database 128 stores information used by server 124. Server 124 manages applications for generating an optical model such as a data collector 130, an optical model generator 132, a sensitivity checker 134, and a correction module 134.

Please replace the paragraph starting on page 9, line 5 with the following amended paragraph:

Data collector 130 may be used to collect data from exposure tool 10 in order to determine how a wafer 28 responds to changes in the lens aberrations of projection

lens 22. As an example, data collector 130 may collect data by moving the lens elements of projection lens 22 to change the lens aberrations. The lens elements may be moved using, for example, piezoelectric actuators. Wafer 28 may be exposed using projection lens 22, and may be analyzed in order to determine the response of wafer 28 to the lens aberration of projection lens 22. The response may be measured using a scanning electron microscope, and may comprise, for example, critical dimension response, line end truncation, pattern placement error, other types of response, or any combination of the preceding responses. Lens aberration data that describes the response may be generated.

Please replace the paragraph starting on page 10, line 9 with the following amended paragraph:

Optical model generator 132 may then generate an optical model using the lens aberration functions. The optical model may include the lens aberration functions and may include functions that describe how other features of exposure tool 10 affect the response of wafer 28. As an example, the other features may include the exposure wavelength, the numerical aperture of the scanner, the source width of the scanner, the demagnification of the scanner, the defocus of the scanner, the standard deviation of the Gaussian diffusion kernel, the binary mask type definition, the proportion of total energy and binary exposure, other suitable features, or any combination of the preceding features.